

## Introduction

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The SGW Functional Tester is an automated test suite for testing the correctness of an implementation of LTE Serving Gateway (SGW) according to 3GPP TS 29.274 (GTPv2C), TS 29.281 (GTPv1U), TS 23.401 and other relevant Release 9 standards.

## Test Coverage

There are total 250 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

## Version 2.0.0.22 Beta

**Release Date:** March 26, 2013

## Component Versions

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1. **SGW Functional Tester : 2.0.0.22**
2. **Test Executive : 2.0.0.19**
3. **SGW Functional Tester Test Procedures : 2.7**

## Resolved Issues

Issue #	Summary
6833	Support of separate ip for control and data plane in SGW FT.
7345, 7346	TC 1.1.1.1, 1.1.1.2, 1.2.1.1, 1.2.1.2 , 1.3.1.1 : FT always expects periodic Echo Request from peer node which is actually optional.
7348	TC 2.1.2.26 : FT sends two identical Bearer Context IEs in Create Session Request to DUT. FT should not expect the request to be rejected.

## Known Issues

Issue #	Summary
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

## Version 2.0.0.18 Beta

Release Date: May 8, 2012

### Component Versions

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1. SGW Functional Tester : 2.0.0.18
2. Test Executive : 2.0.0.17
3. SGW Functional Tester Test Procedures : 2.4

### New in this release

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1. Bug Fixes.

### Test Coverage

There are total 250 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

### Resolved Issues

Issue #	Summary
6408	Setup file specified using -setup/-s parameter was not being used in CLI mode; instead Setup file name stored in Windows Registry was being used.

### Known Issues

Issue #	Summary
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

## Version 2.0.0.16 Beta

Release Date: January 30, 2012

### Component Versions

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1. SGW Functional Tester : 2.0.0.16
2. Test Executive : 2.0.0.16
3. SGW Functional Tester Test Procedures : 2.3

### New in this release

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1. Bug Fixes.

### Test Coverage

There are total 250 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

### Resolved Issues

Issue #	Summary
6219	2.18.1.1, 2.18.1.2: Miniscope Decode is not available for piggybacked testcases.
6166	2.20.X: Create Session Request message should contain Indication Flags IE set to S5/S8 Protocol type.
6184	2.20.4.1: PGW IP address for S5/S8 GTP-U interface in Bearer Context IE of Create Session Request is wrong. It is showing the IP of SGSN.

### Known Issues

Issue #	Summary
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

## Version 2.0.0.13 Beta

Release Date: December 20, 2011

### Component Versions

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1. SGW Functional Tester : 2.0.0.13
2. Test Executive : 2.0.0.16
3. SGW Functional Tester Test Procedures : 2.2

### New in this release

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1. Bug Fixes.
2. The SGW Functional Tester now includes 43 new test cases on :
  - 14 test cases with all mandatory, conditional, conditional-optional, optional IE's in each section.
  - 2 test cases in Piggybacked bearer related.
  - 27 test cases in S4/S12 Interface.

### Test Coverage

There are total 250 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

### Resolved Issues

Issue #	Summary
6094	2.2.5.2: Delete Bearer Request send with default bearer ID instead of dedicated bearer ID.
6091	2.1.2.24: Create Session Response send in S11 interface should not contain S1 U SGW F-TEID IE in Bearer Context.

### Known Issues

Issue #	Summary
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

## Version 2.0.0.10 Beta

Release Date: November 25, 2011

### Component Versions

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1. SGW Functional Tester : 2.0.0.10
2. Test Executive : 2.0.0.16
3. SGW Functional Tester Test Procedures : 2.1

### New in this release

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1. Bug Fixes.

### Test Coverage

There are total 210 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

### Resolved Issues

Issue #	Summary
6051	PAA IP in Create Session Request should be same with the configured UE IP in Testbed setup.
6080	Testcase 2.2.1.3 ,2.2.2.15: Create Bearer Request message should not contain PTI IE for network initiated dedicated bearer handling procedure.
6092	TC 2.13.3.2 and 2.13.3.3:MME should not expect Create Indirect Data Forwarding Tunnel Response with IMSI and Sender F-TEID for control plane.

### Known Issues

Issue #	Summary
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

**Version 2.0.0.9 Beta****Release Date:** November 15, 2011**Component Versions**

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1. **SGW Functional Tester : 2.0.0.9**
2. **Test Executive : 2.0.0.16**
3. **SGW Functional Tester Test Procedures : 2.1**

**New in this release**

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1. Bug Fixes.

**Test Coverage**

There are total 210 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

**Resolved Issues**

<b>Issue #</b>	<b>Summary</b>
6016	Create Session Request message during initial Attach must have all GBR and MBR fields set to 0.
6018	Data pdu testcases : Destination IP has to be the UE IP for DL packets.
5990	2.8.2.1, 2.8.2.2: Without Bearer-Release Req, FT sending MBRQ in UE trigger service request procedure.
5991	2.8.2.4, 2.9.1.4: Cause value case sensitive.
5989	2.4.4.1:EBI value sending different in CSRQ and MBRQ for same IMSI.
5964	Section 2.7, 2.10 : ULI should not be present in Modify Bearer Request in Initial Attach condition.

**Known Issues**

<b>Issue #</b>	<b>Summary</b>
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

## Version 2.0.0.5 Beta

Release Date: September 05, 2011

### Component Versions

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1. SGW Functional Tester : 2.0.0.5
2. Test Executive : 2.0.0.16
3. SGW Functional Tester Test Procedures : 2.0

### New in this release

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1. Bug Fixes.

### Test Coverage

There are total 210 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

### Resolved Issues

Issue #	Summary
5843	Sometimes SGW FT Application doesn't launch after successful installation.
5807	SGW FT sends Create Bearer Response with RAI present in the ULI IE ( Test Cases: 3.1.1.2, 3.1.2.2, 2.4.8.1, 2.4.8.2 ). ULI should be sent with only TAI and ECGL.

### Known Issues

Issue #	Summary
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.

## Version 2.0.0.3 Beta

**Release Date:** August 29, 2011

### Component Versions

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1. **SGW Functional Tester : 2.0.0.3**
2. **Test Executive : 2.0.0.16**
3. **SGW Functional Tester Test Procedures : 2.0**

### New in this release

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1. The SGW Functional Tester now includes UE requested PDN connectivity, Service Request, S1 and X2 Handover, Inter RAT Handover and GTPU Data related Test cases.

### Test Coverage

There are total 210 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU, HO, UE requested multiple PDN connectivity and Path management procedures.

### Resolved Issues

Issue #	Summary
5688	SGW FT does not encode IMEI in Create Session Request message correctly.

### Known Issues

Issue #	Summary
5807	SGW FT sends Create Bearer Response with RAI present in the ULI IE ( Test Cases: 3.1.1.2, 3.1.2.2, 2.4.8.1, 2.4.8.2 ). ULI should be sent with only TAI and ECGL.
5741	Sometimes SGW FT may stop working properly if all test cases are run in a batch.



## Version 1.0.0.4 Beta

**Release Date:** June 29, 2011

### Component Versions

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1. **SGW Functional Tester : 1.0.0.4**
2. **Test Executive : 2.0.0.16**
3. **SGW Functional Tester Test Procedures : 1.0**

### New in this release

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1. The SGW Functional Tester now includes 'PDN Configuration' in Test Bed Setup.

### Test Coverage

There is total 88 test cases with E-UTRAN Attach, Detach, UE and Network Requested Bearer modification, TAU and Path management procedures.

### Known Issues

Issue #	Summary
5596	LDN IE, Bearer TFT IE and TAD IE doesn't showing miniscope decode correctly.